



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,434	12/05/2003	Richard L. Rowe	SFV 302	9404
23581	7590	01/19/2006	EXAMINER	
KOLISCH HARTWELL, P.C. 200 PACIFIC BUILDING 520 SW YAMHILL STREET PORTLAND, OR 97204			BARKER, MATTHEW M	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/728,434	Applicant(s) ROWE ET AL.	
	Examiner Matthew M. Barker	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-32 is/are pending in the application.
- 4a) Of the above claim(s) 13-18, 20-24 and 26-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-12, 19, 25 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 10-12, 19, and 25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 10-12, 19, 25, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Lovberg et al (2004/0056790).

Regarding claim 10, Lovberg discloses an imaging system including a frame extending around a subject position (See Figure 3B), and a plurality of antenna arrays fixedly mounted to the frame and spaced from the subject position (See Figure 3A and paragraph 0006, lines 25-28). Each array includes at least one antenna unit (50) (Figures 3A and 3B) configured to transmit radiation in a frequency range of 200MHz to about 1THz (paragraph 0015, lines 11-13) from a position fixed relative to and spaced from the subject position (paragraph 0006, lines 28-30). Each antenna array transmits toward a portion of the subject that does not receive radiation from at least one other array

Art Unit: 3662

(paragraph 0023 and Figure 3A; some of the reference numbers in paragraph 0023 appear to be incorrect, however each of the antenna arrays clearly transmits to only one quadrant of the target).

In light of definition of the term "transceiver" in the present specification (page 6, line 19-page 7, line 6), Lovberg discloses the claimed transceiver (See Figure 4). According to the definition, the claimed "transceiver" is read broadly and is merely considered to be all of the electronics for generating, routing, processing, transmitting, and receiving millimeter wave signals. The transceiver is not required to be a single unit.

Lovberg discloses a processor adapted to convert received data to produce an image of the subject (paragraph 0024, lines 26-28).

Regarding claim 11, Lovberg discloses at least three arrays spaced around the subject position appropriate to direct radiation toward the entire circumference of a subject (paragraph 0006, lines 25-28).

Regarding claims 12 and 19, the claimed imagining method is the inherent method of operation of the system of claim 10 (Figure 3B, paragraph 0006, lines 25-30).

Regarding claim 25, Loveberg discloses a means (Figures 3A, 3B) for transmitting in a frequency range of about 200MHz to 1THz (paragraph 0015, lines 11-13) from at least one position fixed relative to the subject position (paragraph 0006, lines 28-30).

Loveberg discloses the claimed scanning (paragraph 0006, lines 28-30).

Loveberg discloses a means for receiving reflected radiation, means for producing an output, and means for converting the output into image data (paragraph 0024 and Figure 4).

Regarding claim 32, Lovberg discloses that each array includes a plurality of antenna units distributed vertically along the subject position, and each array is fixed in position relative to the subject position (Figure 3B, paragraph 0006, lines 25-30).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-12, 19, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lovberg et al (2004/0056790) in view of McMakin et al. (2002/0130804).

Regarding claim 10, Lovberg discloses an imaging system including a frame extending around a subject position (See Figure 3B), and a plurality of antenna arrays fixedly mounted to the frame and spaced from the subject position (See Figure 3A and paragraph 0006, lines 25-28). Each array includes at least one antenna unit (50) (Figures 3A and 3B) configured to transmit radiation in a frequency range of 200MHz to about 1THz (paragraph 0015, lines

Art Unit: 3662

11-13) from a position fixed relative to and spaced from the subject position (paragraph 0006, lines 28-30). Each antenna array transmits toward a portion of the subject that does not receive radiation from at least one other array (paragraph 0023 and Figure 3A; some of the reference numbers in paragraph 0023 appear to be incorrect, however each of the antenna arrays clearly transmits to only one quadrant of the target). Lovberg discloses a processor adapted to convert received data to produce an image of the subject (paragraph 0024, lines 26-28).

If claim 10 is read with a more narrow definition of the term "transceiver", then Lovberg does not disclose a transceiver that is configured to operate each antenna array and to produce an output representative of the received radiation.

McMakin discloses a similar imaging system including the claimed transceiver (42).

It would have been obvious to modify Lovberg to utilize a transceiver as taught by McMakin in order to consolidate the transmit and receive circuitry in one unit for easier installation and transportation.

Regarding claim 11, Lovberg discloses at least three arrays spaced around the subject position appropriate to direct radiation toward the entire circumference of a subject (paragraph 0006, lines 25-28).

Regarding claims 12 and 19, the claimed imaging method is the inherent method of operation of the system of claim 10.

Regarding claim 25, Lovberg discloses a means (Figures 3A, 3B) for transmitting in a frequency range of about 200MHz to 1THz (paragraph 0015,

Art Unit: 3662

lines 11-13) from at least one position fixed relative to the subject position

(paragraph 0006, lines 28-30).

Loveberg discloses the claimed scanning (paragraph 0006, lines 28-30).

Loveberg discloses a means for receiving reflected radiation, means for producing an output, and means for converting the output into image data

(paragraph 0024 and Figure 4).

Regarding claim 32, Lovberg discloses that each array includes a plurality of antenna units distributed vertically along the subject position, and each array is fixed in position relative to the subject position (Figure 3B, paragraph 0006, lines 25-30).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderton, McMakin, Keller, and Singh relate to imaging systems.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory

Art Unit: 3662

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew M. Barker whose telephone number is (571)272-3103. The examiner can normally be reached on M-F, 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MMB



THOMAS H. TARCZA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600